



San Francisco Bay Regional Water Quality Control Board

(Sent via email: dutch.veronica@epa.gov)

January 25, 2019

File: CW-803476 and CW-717712

Ms. Veronica Dutch
Office of Pesticide Programs Docket
Environmental Protection Agency Docket Center (28221T)
U.S. Environmental Protection Agency (U.S. EPA)
1200 Pennsylvania Ave., NW.
Washington, DC 20460-0001

Subject: Amitraz – Preliminary Ecological Risk Assessment and Endangered Species Assessment for Registration Review of the Conventional Use in Honey Bee Hives (EPA-HQ-OPP-2009-1015)

Dear Ms. Dutch:

Please accept these comments on the Preliminary Ecological Risk Assessment for the flea, tick, and mite treatment chemical, amitraz. The San Francisco Bay Regional Water Quality Control Board (Water Board) is the California State agency responsible for restoring, maintaining, and protecting the beneficial uses of surface and ground waters in the San Francisco Bay Region. To protect waters within our jurisdiction, we issue federal National Pollutant Discharge Elimination System (NPDES) permits to about 50 wastewater treatment plants. These permits require wastewater agencies (also known as publicly owned treatment works, or “POTWs”) to comply with effluent limitations to protect the beneficial uses of waters of the State.

Beneficial uses of waters of the State can be threatened when pesticides are discharged from wastewater treatment plants, which cannot reliably treat for these pesticides. Further, pesticides in wastewater discharge can disrupt and kill the biological processes at the plants that are necessary to treat effluent to standards protective of receiving water quality. Due to these concerns, we are especially interested in the ecological risk assessment for amitraz due to its indoor uses and associated pathways to the sanitary sewer system.

The purpose of this letter is to request that U.S. EPA conduct a Preliminary Ecological Risk Assessment for amitraz that incorporates the latest available aquatic invertebrate toxicity data and an evaluation of sewer discharges from pet flea and tick control products. Several studies, including a recent study involving POTWs in our region, suggest that pet flea and tick control

DR. THOMAS F. YOUNG, CHAIR | THOMAS MURPHY, INTERIM EXECUTIVE OFFICER

1515 Clay St., Suite 1400, Oakland, CA 94612 | www.waterboards.ca.gov/sanfranciscobay

products have a direct pathway to POTWs via the sanitary sewer system.^{1,2,3} While these studies have focused on pet spot-on products applied directly to pet fur, they prove the existence of the pathway for pesticides in pet collars – which release pesticides onto pet fur – to subsequently be transported to POTWs. We also fully concur with the comments on the amitraz Preliminary Ecological Risk Assessment submitted by the Bay Area Clean Water Agencies (BACWA) and encourage review of the appendices and enclosed studies in that letter.

Pesticide Discharges to the Sewer System Can Be Environmentally Harmful and Costly

Our NPDES permits require wastewater dischargers to comply with the Federal Clean Water Act's water quality standard that surface waters cannot be toxic to aquatic life. Our permits require dischargers to demonstrate compliance with this standard by evaluating toxicity using U.S. EPA standard methods (40 C.F.R. Part 136). This demonstration requires dischargers to conduct toxicity screening tests with a range of species and to perform routine effluent monitoring using the most sensitive species.

We use this monitoring data to determine whether a discharger has a reasonable potential to cause or contribute toxicity in receiving waters. The Clean Water Act requires that dischargers who do have reasonable potential comply with numeric effluent limits. If an exceedance in a toxicity limit occurs (i.e., the discharger's effluent is toxic), the discharger must follow a costly response procedure, which includes performing accelerated monitoring and conducting a Toxicity Reduction Evaluation (TRE) to get back into compliance. The TRE requires dischargers to evaluate options to optimize their treatment plants and conduct a Toxicity Identification Evaluation (TIE), which can cost well over \$100,000 depending on the complexity and persistence of the toxicant. The TIE requires identification not only of the toxicant, but also the sources of the toxicant and strategies for reducing or eliminating it from the discharge, which can include pretreatment and source control. Because dischargers have little control over pesticide use, source control efforts typically consist of public outreach messaging, which reaches only a small percentage of the community, and even a smaller percentage who implement those messages. Upgrading treatment plants is also enormously expensive (e.g., hundreds of millions of dollars), and often ineffective in removing pesticides that can pass right through the biosolids of wastewater treatment (which often capture the bulk of pollutants).

We can pursue enforcement in response to NPDES permit compliance issues caused by amitraz toxicity, which can be up to \$10 per gallon or \$10,000 per day in California. Should we choose not to enforce every pesticides-related violation, given the understanding that stormwater agencies and wastewater dischargers have little control over the pesticides discharged, third parties can still sue dischargers to enforce their NPDES permits under the Clean Water Act. Therefore, NPDES permit compliance is essential.

¹ Teerlink, J., J. Hernandez, R. Budd. 2017. Fipronil washoff to municipal wastewater from dogs treated with spot-on products. *Sci Total Environ* 599-600: 960-966.

² Sadaria, A.M. et al. 2017. Passage of Fiproles and Imidacloprid from Urban Pest Control Uses Through Wastewater Treatment Plants in Northern California. *Environmental Toxicology and Chemistry*. 36 (6), 1473-1482.

³ Bigelow Dyk, M. et al. (2012). Fate and distribution of fipronil on companion animals and in their indoor residences following spot-on flea treatments, *Journal of Environmental Science and Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes*, 47(10): 913-924

The Clean Water Act requires us to consider all evidence when implementing the toxicity water quality standard; for example, if we are presented evidence that amitraz toxicity is present that normally is not captured in standard toxicity tests, we are required to consider that toxicity in the context of the Clean Water Act's water quality standard. Therefore, if we determine that a water body is impaired by pesticides, we must develop a pesticides Total Maximum Daily Load, which can impose a cost millions of dollars per water body on wastewater dischargers.

Request to Evaluate Sewer Discharges from Amitraz Pet Tick Control Treatments in the Preliminary Ecological Risk Assessment

We are particularly concerned with U.S. EPA's conclusion that there is no relevant environmental exposure pathway from amitraz dog collar use, and we respectfully ask that U.S. EPA include an analysis (a "down-the-drain" risk assessment) in the revised Preliminary Ecological Risk Assessment that evaluates sewer discharges from pet flea and tick control collars.

As the amitraz Draft Human Health Risk Assessment explains, pesticides in pet flea and tick collars are released as either particles or liquid onto the pet's fur.⁴ Davis et al. quantified transfer of tetrachlorvinphos, an insecticide, from pet collars onto the gloved hands of subjects interacting with the collared pet.⁵ Similar transfer also occurs for amitraz, as documented by a study cited in the Draft Human Health Risk Assessment.⁶ Once the pesticide has transferred onto the pet's fur, human hands, and other indoor surfaces, it is available for further transfer to the sanitary sewer system. Pet flea and tick control chemicals are transported within a home to an indoor drain that flows to a POTW via the pathways from washing of pets, hands, pet bedding, clothes, carpets, and floors.

We strongly encourage U.S. EPA to review BACWA's comment letter on amitraz, which is enclosed with and details studies in its appendices that examine how pet flea and tick active ingredients from pet fur can transport to the sewer system, both directly through dog washing, and indirectly through the transfer of such ingredients on human hands, socks, and clothing that are subsequently washed. Based on the data from those studies and pet population data, it is clear that pet flea and tick control products are significant sources of pesticides to POTWs that should be accounted for in the Preliminary Ecological Risk Assessment.

Request to Consider Risk Mitigation for Amitraz

As a regulatory agency, we expect wastewater dischargers to fully comply with the Federal Clean Water Act. Therefore, when U.S. EPA identifies significant risks from pesticides discharged to wastewater treatment plants and ultimately waters of the State, it is critical that risk mitigation exists. Given the findings from studies pertaining to pet flea and tick control products and aquatic

⁴ US EPA Office of Pesticide Programs (2018). Amitraz. Draft Human Health Risk Assessment for Registration Review. Memorandum D435892.

⁵ Davis, M., et al. (2008). "Assessing Intermittent Pesticide Exposure from Flea Control Collars Containing the Organophosphorus Insecticide Tetrachlorvinphos," *J. of Exposure Science and Environ. Epidemiology* **18**:564-570.

⁶ Memo, A. Gavelek, D424229, 9/30/2015. "Determination of Transferable Residues of Amitraz from the Hair of Dogs Following the Application of the Preventic® Collar (Formulated End-Use Product 516.20)" MRID 49468801.

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exposure pathways through sanitary sewer systems, down-the-drain risk assessment for amitraz may warrant risk mitigation to reduce amitraz-related aquatic toxicity.

We request that U.S. EPA conduct its risk-benefit evaluation for pet flea and tick control products as a group (considering fipronil, imidacloprid, indoxacarb, and pyrethroids, which are also undergoing registration review) and in the context of the broad range of available non-pesticide alternatives, including Federal Food and Drug Administration-approved oral medications. While we agree that pet flea and tick control products have societal benefits, we encourage U.S. EPA to review Appendix 2 of BACWA's comment letter on amitraz, which consist of an assessment of pet flea and tick control alternatives and includes several oral alternatives that are effective on ticks and far less environmentally problematic than on-pet or indoor pesticide treatments. We emphasize that we do not believe that fipronil, imidacloprid, indoxacarb, or pyrethroids are acceptable alternatives to amitraz.

We request that U.S. EPA consider the following additional risk mitigation strategies for indoor amitraz products:

- Determine the minimum application rate (i.e., collar material concentration) necessary to achieve tick control. This would eliminate unnecessary overuse and minimize POTW discharge quantities.
- Consider adding wastewater-protective use restrictions to product labels – such as dissuading pet owners from washing their pets with the collar on.

The Water Board thanks the U.S. EPA for the opportunity to offer feedback on the Preliminary Ecological Risk Assessment and subsequent mitigation strategies for amitraz and appreciates the important work the Office of Pesticide Programs does through the pesticide registration review process. For any questions, please contact James Parrish at james.parrish@waterboards.ca.gov or (510) 622-2381 as needed.

Sincerely,



James Parrish
Environmental Scientist

cc: *via email:*

Yu-Ting Guilaran, Director, Pesticide Re-Evaluation Division
(guilaran.yu-ting@epa.gov)

Tracy Perry, EPA OPP Pesticide Re-Evaluation Division (perry.tracy@epa.gov)

Rick P. Keigwin, Jr., Director, EPA Office of Pesticide Programs (keigwin.rick@epa.gov)

Andrew Sawyers, Director, EPA Office of Water, Office of Wastewater Management
(sawyers.andrew@epa.gov)

Tomas Torres, Director, Water Division, EPA Region 9 (torres.tomas@epa.gov)

Frank T. Farruggia, Environmental Risk Branch 1 (farruggia.frank@epa.gov)

Sujatha Sankula, Environmental Risk Branch 1 (sankula.sujatha@epa.gov)

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Greg Orrick, Environmental Risk Branch 1 (orrick.greg@epa.gov)
Mark Baldwin, Chemical Review Manager, Risk Management and Implementation Branch 5
(baldwin.mark@epa.gov)
Melanie Biscoe, Team Leader, Risk Management and Implementation Branch 5
(biscoe.melanie@epa.gov)
Linda Arrington, Branch Chief, Risk Management and Implementation Branch 5
(arrington.linda@epa.gov)
Marietta Echeverria, Director, Environmental Fate and Effects Division
(echeverria.marietta@epa.gov)
Debra Denton, EPA Region 9 (denton.debra@epamail.epa.gov)
Patti TenBrook, Life Scientist, U.S. EPA Region 9 (tenbrook.patti@epamail.epa.gov)
Philip Crader, California State Water Resources Control Board
(crader.philip@waterboards.ca.gov)
Karen Mogus, California State Water Resources Control Board
(karen.mogus@waterboards.ca.gov)
Paul Hann, California State Water Resources Control Board
(paul.hann@waterboards.ca.gov)
Jodi Pontureri, California State Water Resources Control Board
(jodi.pontureri@waterboards.ca.gov)
Jennifer Teerlink, California Department of Pesticide Regulation
(Jennifer.Teerlink@cdpr.ca.gov)
Chris Hornback, Chief Technical Officer, National Association of Clean Water Agencies
(chornback@nacwa.org)
Cynthia Finley, Director, Regulatory Affairs, National Association of Clean Water Agencies
(CFinley@nacwa.org)